eFPGA



Silicon-verified, production-proven Embedded FPGA (eFPGA) hard IP on a variety of process node / foundry combinations

Build flexibility and differentiation into your next SoC

Key Features:

Bespoke – QuickLogic eFPGA offers high customization. Simply select the desired number of LUT6s, BRAM, and DSP blocks, along with customized routing, to meet your specific requirements

Proven – eFPGA IP is generated with proven standard cell ASIC libraries for the chosen process node / foundry combination

Specialized – eFPGA IP can be implemented utilizing specialized cell libraries, such as RHBD or automotive qualified libraries

Secure – Implement cryptography and data protection with confidence to protect your SoC

Benefits:

Faster Time-to-Market - Utilize customized eFPGA IP cores that align with your development window

Cost Efficient - Eliminate the need for costly ASIC re-spins

Scalable Solutions - Expand functionality without hardware modifications

Unparalleled Performance - Address the demands of complex applications

Reconfigurable - Adapt to evolving needs with ease, saving on silicon costs

High Performance - Experience accelerated data processing capabilities

Optimized - For performance, area, and power consumption for embedded systems



Security-Ready - Safeguard your data and communications with our robust security features

Flexibility to Meet your SoC Design Requirements - Optimized for your power, performance and area requirements

Cost Effective – Our automated approach ensures cores are tailored to your specific needs meeting your development time and cost targets

Most Successful Track Record for **both** FPGAs and eFPGA IP

~50M units shipped

>20 production FPGA tape-outs ~2,000 customers



While these are the foundries and nodes we have extensive experience with, QuickLogic can support any foundry or process node to meet your specific requirements.







UMC

SAMSUNG

IN VLSI

18A, 6/7nm, 12nm, 16nm, 22nm, 28nm, 40nm, 65nm, 90nm, 130nm, 180nm, 0.25µm, 0.35µm, 0.65µm



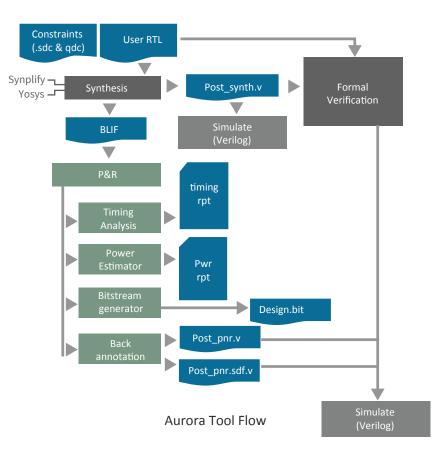
QuickLogic's eFPGA Technology Delivers Post Manufacturing Flexibility



Aurora[™] FPGA User Tools

The Aurora Development Tool Suite offers flexibility with multiple synthesis options, allowing users to choose between Yosys and Synopsis Synplify[®] for scalable, long-lasting solutions with complete code transparency

It features core tool enhancements that improve the eFPGA utilization and performance of a designer's RTL, particularly in the area of reconfigurable computing.



State-of-the-art "Single Stage" Routing Algorithm

Experience a remarkable up to 24% increase in the maximum operating frequency (Fmax) of your designs.

BRAM and DSP Inferencing

Simplify your RTL design with our inferencing feature, reducing the need for manual modifications and enhancing overall design efficiency.

Dynamic Power Calculation

Our tool automatically calculates dynamic power consumption, streamlining power calculations across your design libraries.

Enhanced Usability

The development environment has been revamped with improved tools, including a Physical Viewer, Critical Path Analysis, and Detailed Timing/Utilization Information.

Learn more about Aurora





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